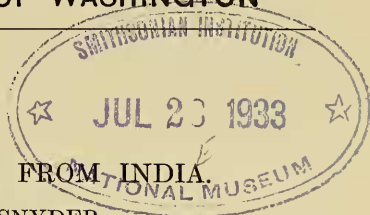


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TWO NEW TERMITES FROM INDIA.

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A small collection of termites received from J. C. M. Gardner, systematic entomologist, Forest Research Institute, Dehra Dun, India, contains two new species that are not included among those mentioned in another paper of mine, now in press, on new termites from India. These two new species, described herewith, give India a total of 86 known termites; in continental United States there are 56 known species.

One of these species is in the subgenus *Euhamitermes* Holmg., genus *Amitermes* Silv., represented by *hamatus* Holmg. from Malacca and *indicus* Holmg. from India, and known only from the soldier caste; these termites are very rare and only one colony of each has been found. The other new species is in the genus *Microtermes* Wasm. and may be the sexual form of a species known only from the soldier caste, although it is very different from any known sexual form.

Both new species were found in a mound nest of *Termes* (*Cyclotermes*) *obesus* Ramb. The king and queen of the new *Microtermes* were in a cell about 1½ feet above the ground level. It is not known from what part of the nest the soldier of the new *Euhamitermes* was found.

The king and queen of the host termite, a common fungus-growing species, were also collected. There is a marked contrast between the *Termes* and *Microtermes* queens. The *obesus* queen is an old, physogastric, macropterous female, 68 mm. in length and 17 mm. in width. The usual dark, longitudinal streak runs down the middle of the dorsal area, as is characteristic of old *obesus* queens. In older and larger queens (over

100 mm. in length and 25 mm. in width) of African termites in the *Termes* group, this blackish area is not present. Such queens are over 160 times the size of the king, as determined by volumetric displacement, whereas this *obesus* queen has only 75 times the volume of the king.

Descriptions of the new species follow:

***Microtermes unicolor*, n. sp.**

*King* (slightly physogastric, dealated male).—Head castaneous brown, with dense long hairs, the bases of which appear as white dots. Post-clypeus yellow, strongly bulging and bilobed, length about half its width. Labrum yellow, tongue-shaped. Fontanelle a raised white spot at the convergence of the lines from the ocelli to the vertex, namely, at the beginning of the epicranial suture.

Eyes black, large (small in *sindensis* Desn.), projecting, not round, very close to lateral margin of head. Ocelli white, large, suboval, separated from eyes by a distance less than half the short diameter of ocellus and at an oblique angle to eyes.

Antennae with 13 segments (broken?), second slightly longer than third and fourth segments, which are subequal.

Pronotum of about the same color as the head and with the same pubescence; subcordate; sharply and deeply, but narrowly, emarginate anteriorly; shallowly and angularly emarginate posteriorly with a T-shaped or shallow Y-shaped white median marking and an ocellus-like marking on the upper corner of each lobe.

Anterior wing scale slightly longer than posterior.

Meso- and meta-nota slightly lighter colored than pronotum; unlike in *obesi* Holmg., the fore part of the meso- and the meta-notum is lighter colored than the hind part; the mesonotum is more deeply incised posteriorly than the metanotum.

The meso- and meta-thoracic legs are missing on the left side, and there is a black bite scar on the mesothoracic coxa.

Abdomen with a slightly grayish tinge, an ocellus-like marking on the side of each tergite; tergites with dense long hairs.

<i>Measurements</i> .—Length of entire dealated adult.....	8.00 mm.
Length of head (to tip of labrum).....	2.20 mm.
Length of pronotum.....	0.90 mm.
Length of hind tibia.....	1.40 mm.
Long diameter of eye.....	0.40 mm.
Width of head (at eye) .....	1.45 mm.
Width of pronotum.....	1.35 mm.

*Queen* (physogastric, dealated female).—Slightly lighter in color than king, but the color of both kings and queens is often lighter than that of the winged adults. Length 20 mm., width 2.8 mm., height 1.9 mm.; very elongate in relation to thickness, wider than high, in consequence present-

ing a somewhat flattened appearance. A longitudinal yellow streak runs down the middle of the dorsal area.

Antennae with 13 segments (broken?).

Distinct, owing to the uniform dark color of head and pronotum; compared with cotype of *obesi*.

*Type locality*.—Dehra Dun, U. P., India.

Described from a king and queen collected at the type locality by J. C. M. Gardner, "26, IX, '32 ex termite mound, S. E. 1236/6, tube 31."

*Cotypes*.—King, tube 31 in British Museum; queen, Cat. No. 44878, U. S. National Museum.

#### *Amitermes* (*Euhamitermes*) *lighti*, n. sp.

*Soldier*.—Head yellow, quadrangular, longer than broad, fairly thick, not narrowed anteriorly, with fairly long bristles and a conspicuous mat of short hairs from which the longer bristles stand out.

Mandibles brown, relatively short, heavy, and strongly bowed. A pointed marginal tooth in middle of each mandible, which appears somewhat to be the point of a broad molar, point more projecting on left mandible. Antennae with 14 segments; segments as in *indicus*.

<i>Measurements</i> .—Length of entire soldier.....	4.90 mm.
Length of head with mandibles.....	2.40 mm.
Length of head to anterior margin.....	1.70 mm.
Length of left mandible.....	0.70 mm.
Length of pronotum .....	0.40 mm.
Length of hind tibia.....	0.90 mm.
Width of head.....	1.29 mm.
Length of pronotum.....	0.65 mm.

Dr. A. E. Emerson, of the University of Chicago, has kindly compared this new species with cotypes of *hamatus* and *indicus*.

The head of *lighti* is larger than that of *hamatus* and the dentition of the left mandible appears to be different; the pilosity appears to be similar, but the cotype is in poor condition. The head of *lighti* is shorter and broader than that of *indicus*, and *indicus* does not have the rather thick mat of short hairs in addition to the longer bristles. *A. indicus* has a very few short hairs. There are differences in the size of the head and *lighti* has a wider gula; cotype of *indicus* in poor condition.

Named in honor of Dr. S. F. Light, of the University of California, who has recently added greatly to our knowledge of the genus *Amitermes*.

*Type locality*.—Dehra Dun, U. P., India.

Described from a soldier collected in a mound of *T. (C.) obesus* at the type locality by J. C. M. Gardner, "26, IX, 32, ex termite mound, S. E. 1266/6, tube 31."

*Holotype, soldier*.—Cat. No. 44879, U. S. National Museum.